

CLAIMS:

1. A recording and reproducing apparatus for inputting, recording, reproducing and outputting a stream of TS packets, comprising:

an input counter operable to generate an arrival time for each of the TS packets input to the apparatus;

a time adder operable to add said arrival time to respective ones of the TS packets;

a recording medium;

a controller operable to control recording so that the TS packets to which said arrival time has been added are recorded onto said recording medium and to control reproduction so that the TS packets to which said arrival time has been added are reproduced from said recording medium;

an output counter operable to generate an output time for each of the TS packets reproduced from said recording medium;

a variable speed counter operable to fluctuate a time base of said output times generated by said output counter; and

an output controller operable to control reproduction so that, for each TS packet reproduced from said recording medium, said arrival time is extracted and compared with said output time, and when said arrival time reaches a time corresponding to said output time, the TS packet reproduced from said recording medium is output,

wherein a variable speed reproduction is executed by fluctuating said time base of said output times generated by said output counter.

2. An apparatus according to claim 1, wherein said output counter is driven by a first clock and said variable speed counter is driven by a clock different from said first clock, and each time a counting operation of said variable speed counter is executed a predetermined number of times, a

value of said output counter is shifted, thereby fluctuating said time base of said output times generated by said output counter.

3. An apparatus according to claim 1, wherein said recording medium is a hard disk drive (HDD).

4. A method for inputting a stream of TS packets, recording the input stream of TS packets, reproducing the recorded stream of TS packets, and outputting the reproduced stream of TS packets, comprising:

adding an arrival time to each of the TS packets in the input stream;

recording the TS packets to which the arrival time has been added onto a recording medium;

generating an output time for each of the TS packets reproduced from the recording medium;

controlling reproduction so that, for each TS packet reproduced from the recording medium, the arrival time is extracted and compared with the output time, and when the arrival time reaches a time corresponding to the output time, the TS packet reproduced from the recording medium is output; and

executing a variable speed reproduction by fluctuating a time base of the output times.

5. A method according to claim 4, wherein the time base of the output times is fluctuated at predetermined intervals.

6. A receiving apparatus for receiving a digital broadcast signal including a stream of TS packets, recording the received digital broadcast signal, and thereafter, reproducing the recorded digital broadcast signal, comprising:

an input counter operable to generate an arrival time for each received TS packet in the digital broadcast signal;

a time adder operable to add said arrival time to respective ones of the received TS packets;

a recording medium;

a controller operable to control recording so that the TS packets to which said arrival time has been added are recorded onto said recording medium, and to control reproduction so that the TS packets to which said arrival time has been added are reproduced from said recording medium;

an output counter operable to generate an output time for each of the TS packets reproduced from said recording medium;

a variable speed counter operable to fluctuate a time base of said output times generated by said output counter; and

an output controller operable to control reproduction so that, for each TS packet reproduced from said recording medium, said arrival time is extracted and compared with said output time, and when said arrival time reaches a time corresponding to said output time, the TS packet reproduced from said recording medium is output,

wherein a variable speed reproduction is executed by fluctuating said time base of said output times generated by said output counter.

7. An apparatus according to claim 6, wherein said output counter is driven by a first clock and said variable speed counter is driven by a clock different from said first clock, and each time a counting operation of said variable speed counter is executed a predetermined number of times, a value of said output counter is shifted, thereby fluctuating said time base of said output times generated by said output counter.